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STATE DEPARTMENT OF EDUCATION
OF LOUISIANA

1941

BULLETIN No. 456

Suggestions
for
Improving Health and Nutrition
Through the School Lunch Program
in
Louisiana

PREPARED UNDER THE DIRECTION OF
THE HOME-ECONOMICS DIVISION
of the
DEPARTMENT OF INSTRUCTION AND SUPERVISION

Issued by
JOHN E. COXE
State Superintendent of Public Education
Baton Rouge

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FOREWORD

The reports on school lunch activities and achievements indicate that Louisiana occupies a leading place in nutrition education designed to feed hungry children at school and thereby remove and prevent malnutrition. Progress in education is to be measured by physical, mental, and social development, as well as by scholastic standards. Physicians and nutritionists have supplied facts to show that hungry and malnourished children cannot make normal grade progress; therefore the school-lunch program can make a valuable contribution to both physical and mental development of children, and at the same time bring about greater efficiency in the use of public school funds.

This bulletin has been prepared as a guide for principals and teachers to consider when planning interrelated learning experiences from life situations at all grade levels. Furthermore, it contains information on adequate daily meals, food and health habits, and specific suggestions for learning activities that can be made a part of the total education program. Undoubtedly there is an urgent need for emphasizing nutrition education at all grade levels.

Your thoughtful consideration and use of this material in further developing nutrition and health education for the children of this State will be deeply appreciated.

JOHN E. COXE,
*State Superintendent
of Education.*

PREFACE

The primary purpose of the school-lunch program is to improve nutrition and health of boys and girls at all age and grade levels. This can only be accomplished through united effort and action of school officials, parents, teachers, contributing agencies, and children. Information and suggested activities in this bulletin have been prepared by Miss Uarda Simmons, Supervisor of the State School Lunch Program, for the purpose of assisting interested groups in planning and carrying on a school-lunch program that will correct and prevent malnutrition among growing children.

Scientific studies have revealed facts showing that hungry and malnourished children are seriously handicapped in learning. Dr. Thomas Parran, Surgeon General of the United States, says, "It is a waste of public funds to try to teach hungry children" who are incapable of participating in normal school activities. The plan in action, and to be further developed by the State Department of Education and the public school system is guided by a fundamental principle of using adequate school lunches to feed hungry children, and thereby improve nutrition and health, and general education. In successful educational programs, adequate school lunches and nutrition problems in life situations will provide instructional materials for invaluable learning experiences. Home economists and psychologists agree that children learn to eat right foods just as they learn reading, writing, and arithmetic. This bulletin is developed around fundamental principles of learning and should serve as a valuable guide for all teachers who are concerned with the optimum physical, mental, and social development of children at all age and economic levels.

A school-lunch program successfully developed as proposed will render a great service to children in terms of normal growth, right behavior, social adjustment, and rate of learning; and likewise reduce difficulties for parents and teachers in directing children's activities. Moreover this

type of program has been recognized by the National Nutrition Conference for Defense, which includes a policy stating a need for

“Mobilization of every educational method to spread the newer knowledge of nutrition among people by means of the schools, motion pictures, radio, public press and home.” . . .

CLYDE MOBLEY,
*State Supervisor of
Home Economics.*

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INTRODUCTION

Through the cooperative effort of superintendents, principals, teachers, other school officials, and various agencies gratifying results have been secured in the School Lunch Project. This progress has been due largely to the initiative and leadership assumed by the local school officials and patrons in accepting and promoting this educational project in health and nutrition. The statement has been made by President Roosevelt that there is a definite need for placing more emphasis on the National problem of *better nutrition*. The nutrition education program must reach and influence men and women as well as boys and girls, must reach individuals at every economic level, and must be a community undertaking if it is to be effective. A study of nutritional needs of each community, a knowledge of conditions and resources of families, and plans to use all available resources should be made before the program can be satisfactorily launched. The School Lunch Program affords excellent opportunities for improving the physical, mental, and social well-being of boys and girls. The school officials, teachers, pupils, patrons, and others should work together in getting *all* people interested in nutrition, to realize a need for such information, and to put into action practices that are essential for good nutrition.

Principals, superintendents, and teachers have expressed a desire to promote more learning experiences in connection with the lunchrooms. Requests made for more assistance along this line have guided the organization of this pamphlet, which includes suggested activities, fundamental information, and desired practices to be promoted by each teacher in making this an educational project in

nutrition and health. All teachers need to realize that they have a definite part in this project. What they say, do, and believe form the foundation for the lunch program in the respective schools. It will be necessary to use every means possible to drive home the same ideas many times and in many ways. In doing this it must be remembered that all educational principles should be observed if learning is to take place.

THE NEED FOR A GOOD SCHOOL LUNCH PROGRAM

Nutrition is no longer something to be talked about and to be written about. The need for checking malnutrition makes it imperative that action be taken in meeting the nutritional deficiencies which are evident among individuals in every school and community. Informed people know that food has a tremendous effect upon the physical and mental vigor, resistance to disease, emotional stability, ability to think and reason, good vision, capacity for work, and the morale of people. Since it is the food we eat that builds our bodies and gives us our daily energy, a good nourishing meal in the middle of the day is necessary for health and growth of active children. The poor lunches eaten by thousands of children in Louisiana are due to lack of information, lack of skill in preparation, lack of funds, and lack of ability to use available resources. It is well to keep in mind the statement made by Dr. Mary S. Rose, "The machinery of education is wasted if it operates on a mind listless from hunger or befogged by indigestible food whether the cause is from carelessness, poverty, or ignorance."

Many school officials, parents, teachers, and others in Louisiana are aware of the importance of making available an adequate lunch for the school child who must take his noonday meal away from home or who is not able to secure a nourishing meal at home. There are many other parents and children who should be reached by information on food and nutrition through the school-lunch program which is an educational project in nutrition and health. It is the duty of the teachers to become informed and assume some responsibility in directing learning experiences on good food habits through interrelation with subjects at all grade levels. Such action can be more effective when information and contacts help to convince parents.

OBJECTIVES FOR PROMOTING A GOOD SCHOOL LUNCH PROGRAM

The school-lunch project has a vital part to play in nutrition and the educational program. In order to occupy this place there is a need for:

1. Interesting the public in nutrition of children and in the school food service as a way of meeting the different nutritional needs of all children.
2. Recognizing family food patterns as factors in food habits and the need of supplementary foods to make them nutritionally adequate.
3. Teaching good food and eating habits, better citizenship, good table manners, and sanitary standards.
4. Recognizing the need for selecting and eating foods essential to health.
5. Providing and serving nourishing meals to help combat malnutrition and to help maintain in the children health and vigor essential to their growth and success in all activities.
6. Correlating the activities of the lunchroom with the instruction in various fields which can provide many excellent learning experiences.

A GOOD SCHOOL LUNCH PROGRAM

An effective program will be a community undertaking in which home, school, and other agencies cooperate in making plans, carrying out plans, and evaluating results. If teachers succeed in this giant task of education, ingenuity and inventiveness must be used in providing the tools and materials that make ideas have a meaning, and help people to take wise action. Parents as well as boys and

girls must be convinced of the value of good food to the well-being of the individual if action is to result. The co-operation of the public health directors, physicians, or other trained people capable of investigating evidences of malnutrition should be secured. They may make physical examinations and give reports which will give specific evidences of the need for improving nutrition through a successful school-lunch program. Discovering such needs will require time, energy, and thought on the part of teachers, pupils, and parents and is essential if changed practices are to result. It will not be enough to discover the needs as some understanding of scientific facts and fundamental principles must be given if desirable nutrition habits are to become a part of one's daily living. These practices must be more satisfying and convincing to the individual than those of their own free choice. Dr. Mary S. Rose has said that, "The subject of food and its wise use has more learning content than any other phase of health education." It is a challenge to every teacher to make people conscious of the need of *reading their plate as well as the paper*, and of *balancing their meals as well as the budget*.

It has been said that it is easier to change a person's politics or his religious belief than it is to change his food and eating habits. Such a statement should be a challenge to every teacher. Before attempting to bring about changes, family food patterns must be recognized as an influencing factor in the formation of food habits. Family food patterns must be studied and suggestions offered as to the supplementary food needed to make them nutritionally adequate. If changes must be made in these patterns, they should be introduced gradually. One note of warning may be sounded and that is do not condemn a pattern, but offer suggestions that will improve it and bring satisfaction. Make the suggestions appealing. This may be accomplished by use of pictures, by demonstrations, by exhibits, and by stories.

All of this does not necessarily mean increased responsibility for the teacher but rather an emphasis on everyday problems of vital concern to every individual. Teaching food and eating habits, requirements of a good diet, good manners, courtesy, and sanitary and health standards will no longer be based on hypothetical cases but on life situations. A real situation—the lunchroom—will be provided and teachers will teach children nutrition facts which relate to individual and community needs. The teacher, parents, and pupils will evaluate the program by the habits established as a result of attitudes and ideals developed.

SUGGESTED ACTIVITIES

It would be impossible for one person to plan activities and give the information needed by the students for various grade levels. For this reason every teacher should stress activities needed by the particular group. The principles to be taught and the means of presentation will vary according to the needs, interests, and capacities of various individuals. Most of the suggested activities are related to the third and fourth objectives—teaching good food and eating habits, good health habits, good table manners, and good citizenship; recognizing the need for selecting and eating the foods essential to health. This also holds true for the fundamental information. Each teacher should analyze this material carefully and select that which will meet the needs of her group, add to it, and evaluate the outcomes according to the objectives set-up.

Activities to be Promoted by All Teachers

1. Encourage pupils to use correct table manners.
2. Demonstrate the selection and use of proper equipment for eating.
3. Demonstrate correct method in setting the table.

4. Encourage the establishment of correct food and eating habits for good nutrition and health.
5. Encourage the establishment of desirable social habits and good posture.
6. Establish sanitary standards to be maintained in connection with the lunch program.
7. Encourage pupils to help make and keep the lunch-room attractive.
8. Help to remedy the deficiencies caused by poor nutrition.
9. Establish a feeling of need for selecting and eating foods essential to good health.
10. Encourage the expenditure of available money for nutritious and essential foods by keeping carbonated drinks removed from the lunchroom area.
11. Evaluate results of all activities by changed attitudes and practices of students. Observe changes in general appearance, in grade progress, in weight, and in attendance.

TABLE MANNERS

Everyday practices in good table manners are necessary if they are to become habits of behavior. If table manners are made habitual an individual will have a feeling of self-confidence which is essential for his social welfare. The earlier these habits are formed the better it is for the boys and girls. Good table manners must be practiced at home and at school if they are to become a part of the child's daily living. The rules of good table manners are simple and easily acquired by observation and practice.

Some of the general ones to be practiced are:

1. Break bread in small pieces for buttering or eating.
2. Use fork or spoon for all foods instead of fingers except those that can be eaten without soiling the fingers such as, cookies, crisp bacon, bread, and radishes.
3. Use spoon to eat soft foods such as custards, stewed fruits, soup, and for stirring sugar into beverages.
4. Use a fork instead of a spoon whenever possible.
5. Eat some of all the food served.
6. Place knife on the back of the plate after it is used.
7. Dip soup away from you.
8. Eat soup from the side of the spoon.
9. Use knife for cutting foods; cut *only* one bite at a time.
10. Take small portions on the fork or spoon when eating and be sure all of it is taken into the mouth at the same time.
11. Be seated at the left side of the chair and rise from the left side, if chairs are used.
12. Keep lips closed while chewing.
13. Ask to be excused if necessary to leave the table before the group is ready to leave.
14. Remain standing until the group is ready to be seated at the same table.
15. Place the napkin in the lap for protection and use it to wipe the lips or the tips of the fingers.
16. Talk or drink only when there is no food in the mouth.
17. Eat leisurely.

Don'ts

1. Don't break bread and put into soup or other liquids.
 2. Don't bite from a whole slice of bread or biscuit.
 3. Don't blow food to cool it.
 4. Don't criticize the food served.
 5. Don't use toothpicks at the table.
 6. Don't place silver on the table after it is used.
 7. Don't lift dishes or tilt dishes to eat from them.
-

SETTING THE TABLE

In teaching good table manners and citizenship one of the first requirements should be to secure desirable and needed equipment for serving the lunch. This will help the pupils to realize the value of such practices. It is not very convincing to tell a child that a fork is used for certain foods if a fork is never provided for those foods. It is also difficult to teach an individual to respect public property when the equipment is unattractive. The serving equipment placed correctly on the table does much to establish a sense of order and cleanliness. It also helps the child to recognize a table set correctly. If the principles followed in setting the table are demonstrated in the classroom it helps the child to feel secure in taking the napkin, in taking a drink of water, or picking up a fork in the lunchroom.

Boys and girls should have an opportunity to see tables set correctly and to assume the responsibility of setting tables. This experience affords an excellent opportunity for the child to take home and put into practice something he has learned at school. It also helps the boys and girls to feel that they may assume definite responsibilities in the home.

Some general rules to follow in setting a table are:

1. Place the knife to the right of the plate and next to it.
2. Place the fork to the left of the plate unless a knife is not used then it may be placed to the right.
3. Place the spoons to the right of the plate next to the knife and in the order of use beginning away from the plate.
4. Place the glass at the tip of the knife.
5. Place the cup to the right of the glass with the handle to the right parallel to the edge of the table.
6. Place the plate and silver one inch from the edge of the table.
7. Place the napkin to the left of the fork.

A SOCIAL ATMOSPHERE

The teaching of desirable social habits, good citizenship, and good table manners should be a part of all health and nutrition teaching if all experiences in the lunchroom are to become meaningful learning situations. The contacts in the lunchroom should help students cultivate friendliness, courtesy, a respect for the rights of others, and a democratic attitude. If these results are to be attained, then provision must be made:

1. For pupils to meet and talk with others easily.
2. For boys and girls to eat at the same table.
3. For pupils of same age levels to eat together.
4. For a lunch period of 20-30 minutes.
5. For some type of music which would provide a friendly atmosphere.
6. For pupils to act in a socially acceptable manner.

SANITARY STANDARDS

Teaching will become more meaningful to the boys and girls when they see good standards of sanitation put into practice. It is very difficult to teach a child that he should wash his hands before each meal if he has never seen this put into practice or had a feeling of satisfaction as a result of the habit. The students should be encouraged to assist in establishing these standards and be given an opportunity to assume some responsibility in providing the essentials for sanitary conditions. The functional experiences provided at school will help to enrich the individual, family, and community life. One should not teach that flies, rats, and insects are detrimental to health unless some guidance is given to help eliminate or control such pests. The teacher with initiative, good judgment, and a vision will see that a unit on sanitation can and will become a "live" unit. Some of the sanitary standards to be established and maintained in connection with the lunch program are:

1. That pupils wash hands before eating. This should not take more than five minutes. Liquid soap and towels should be provided and the activity carried on in an orderly way.
2. That one child does not eat or drink after another child. No child should use a fork, spoon, or glass that has been used by another.
3. That a disinfectant is provided and used in washing dishes.
4. That food is properly stored—flour, cereal, etc., in air-tight containers which are free of insects, dust, rats, and odors such as oil; foods stored in refrigerator should be put in covered containers or wrapped in waxed paper to avoid the mixing of odors and flavors.
5. That dishes are scalded and stored in a place free of dust, rats, and other household pests.

6. That pot holders and towels are used for the purposes intended.
7. That the preparation and serving areas are free of flies, rats, and other pests.

MAKING AND KEEPING THE LUNCHROOM ATTRACTIVE

What standards do you use when selecting a place to eat? The attractiveness, the cleanliness, and the orderliness of lunchrooms or eating places are influencing factors in making the decision. Such an atmosphere provides an opportunity to teach fundamental art principles, to develop appreciation for attractive surroundings, to create a desire to improve or make surroundings attractive. These activities should be correlated with art. The boys and girls should be guided to feel that they have a definite responsibility in making and keeping the lunchroom attractive. This may be easily done by different homeroom groups being responsible for the lunchroom during a definite period of time. The teacher and the students will decide what needs to be done, how much they can do, and who will be responsible for each activity. To make it more of a learning situation, some of the responsibilities, such as selecting and arranging flowers attractively, will be rotated from day to day in order that more students may have as many experiences as possible. Some of the ways of making the lunchroom more attractive are:

1. Bring and arrange flowers *attractively* for the centerpiece of the table.
2. Select or make *suitable* flower containers.
3. Select and frame *suitable* pictures for the lunchroom.
4. Select and apply a *suitable, attractive*, and inexpensive finish for the tables and benches.

5. Make napkins. These may be made from sugar sacks, flour sacks, etc.
 6. Repaint trays such as those secured from the Coca-Cola Company.
 7. Finish, paint, and add an attractive design to butter-keg tops, large coffee or lard can tops to be used for trays.
 8. Make and use attractive and meaningful posters in the lunchroom.
 9. Select and make attractive curtains for the lunchroom.
-

FOOD AND EATING HABITS

How many boys and girls spend a dime for a "coke" and a bar of candy, a "coke" and a sandwich, or an adequate plate lunch? Which would give them more in return for their money? Teachers have a definite responsibility of teaching boys and girls to form eating habits that will result in good physical development. This is as important to the child as teaching him to form good reading or working habits. All are essential for the well-being of the child so why stress one and not the others. Too long the establishment of good food and eating habits has been left to chance, yet health has been taught all boys and girls for years and years. These habits constitute one of the greatest factors influencing health.

Many individuals "live to eat" instead of "eating to live." Then there are those who eat more or less from habit and do not receive any pleasure while eating. It is essential that one enjoys foods that are good, foods that are well prepared, and foods well served if the greatest returns are

to be received from the foods eaten. Some of the essential food and eating habits to be established are:

1. To select and eat the essential and most nutritious foods; to eat some of all food served, if possible.
 - a. A good practice to encourage this is to see that children who have not eaten all the food stay about five minutes longer than the average time required for eating on the assumption that these children have not had time to eat the food served.
 - b. Suggest that, if a food is disliked, a little be eaten each time it is served and finally maybe a taste will be cultivated.
2. To eat each meal leisurely. Time should be allowed for thorough mastication and enjoyment. The usual time required to eat a lunch is fifteen minutes.
3. To drink water or other beverage as a part of the meal, but not to use for the purpose of washing food down.
4. To eat foods while at the table. Do not leave with any food in the hands or mouth.
5. To avoid the selection of carbonated drinks and cheap candies.

FOODS FOR BETTER NUTRITION

If boys and girls are going to establish and maintain good food and eating habits they should learn the essential foods and amounts needed daily, the use of food to the body, nutrients found in food, and nutritious foods that are inexpensive. This will help to provide them with facts necessary to convince them of the importance of the practices to be formed. Such information will need to be presented in an appealing, interesting, and dynamic manner if it is to bring the desired results. Each teacher should be alert

and resourceful in securing teaching aids which will be vital in making teaching of food selection and good health habits more functional. Some aids which will be helpful are:

1. Make and display posters, pictures, and charts suggesting what to eat.
2. Use verbal or printed suggestions on a completed tray at noon and displays of nutritious lunches.
3. Make weekly announcements in assemblies of the amount of milk, fruit, and vegetables used in the lunchroom to increase interest.
4. See that high standards of quality and preparation are maintained for all foods.
5. Guide children in planning adequate plate lunches that are economical and pleasing to the taste to be served in the lunchroom.
6. See that foods are attractive and well flavored when served.
7. Sponsor plays, movies, lectures, and exhibits dealing with food selection.
8. Sponsor a feeding experiment with white rats. Feed some adequate diet and others an inadequate diet. (See home economics or science teacher)
9. Secure the cooperation of the parents and pupils.
10. Read or tell stories that relate to the production, conservation, sources, or value of foods.
11. Make field trips to grocery stores, gardens, etc.

If the goals—providing adequate meals, and selecting and eating foods essential to health—are to be attained, certain foods must be in the lunch eaten by children. There should be a liberal supply of protective foods, those which give an abundance of vitamins A, B, and C and minerals—iron and calcium. In foods supplying adequate amounts of these nutrients there will be enough of the other vitamins and minerals needed. To meet these requirements a

lunch should include one-half pint of milk as a beverage; whole-grain cereal or bread; some form of protein such as meat, fish, eggs, or dried beans; a vegetable or fruit, or both; butter; and a dessert, if desired.

Milk should receive first consideration because it promotes a high standard of general health. It is a cheap and an important source of calcium, vitamins A and B, riboflavin, and protein. Vegetables and fruits greatest contribution to the diet is the supply of minerals and vitamins, particularly vitamin C. They also aid in maintaining the alkaline reserve of the body, furnish roughage, add flavor, color, variety, and texture to the meal. Cereals and other grain products are important in low-cost meals: for their nutritive value, especially for iron, protein, and calories; for their digestibility; and for the variety that may be secured in preparation. Meat, eggs, and fish add much to the flavor and zest of a meal and are high in protein content. Meat and eggs are usually a good source of iron.

*Daily Needs**

- 1 pint-1 quart of milk
- 1 serving of orange, grapefruit, tomato, mandarin, raw cabbage, or strawberries
- 1 other serving of fruit, dried or canned
- 1 serving of green, leafy, or yellow vegetables
- 1 serving of other vegetable
- 1 serving of whole-grain products, as brown rice, whole-wheat cereal, oatmeal or yellow grits; other cereals and breads as desired
- 1 serving of potato
- 1 serving of meat, poultry, fish, or cheese
- 1 egg
- 3-4 tablespoons of butter
- 1 serving of simple sweets, as puddings, preserves, cookies, or custard
- 6-8 glasses of water.

* Information adapted from "Planning for Good Nutrition," Hazel K. Steibeling, and Faith Clark, in *Food and Life*, 1939.

Uses to the Body

Protective Foods Which Make Us Glow: Milk and milk products; green, leafy, and yellow vegetables; fruits, especially citrus and raw; eggs; and whole-grain cereals.

Body Building Foods Which Make Us Grow: Milk, meat, vegetables, eggs, fruits, and whole-grain cereals.

Heat and Energy Foods Which Make Us Go: Butter, breads, dried fruits, sugar.

Some of the most healthful and inexpensive vegetables are: turnip greens, cabbage, lettuce, tomatoes, onions, potatoes, collards, and spinach. Some of the most healthful fruits are: grapefruit, oranges, prunes, raisins, apples, peaches, and apricots. Some of the most healthful cereals and breads are: whole-grain cereals, whole-wheat muffins or biscuits, brown rice, yellow grits, yellow cornmeal, and oatmeal.

Needed Nutrients and Sources

Much has been said about the daily diet and one needs to know how to make wise choices if foods are to mean the most to the individual. If we are to eat foods for health, it is necessary that these foods contain the right kinds and sufficient amount of vitamins and minerals; enough calories; enough protein and the right kind; and cellulose. Not all individuals require the same amount of food as the occupation, size, sex, state of health, and age may differ. One should be sure that a maximum amount of the vitamins and minerals are provided. The following gives the foods that are good or excellent sources of the vitamins and minerals that are usually lacking in the diet:

Foods Rich in Calcium

- | | | |
|------------------------|--------------|--------------------|
| 1. Buttermilk | 6. Celery | 12. Mustard greens |
| 2. Beans, dry or fresh | 7. Collards | 13. Oysters |
| 3. Cabbage | 8. Crabs | 14. Okra |
| 4. Carrots | 9. Eggs | 15. Rutabagas |
| 5. Cheese | 10. Lettuce | 16. Turnips |
| | 11. Molasses | 17. Turnip greens |

Foods Rich in Phosphorous

- | | | |
|-------------------------------|--------------|---|
| 1. Beans | 8. Fish | 16. Poultry |
| 2. Buttermilk | 9. Liver | 17. Rice, brown |
| 3. Cowpeas or black-eyed peas | 10. Meat | 18. Rice bran |
| 4. Corn | 11. Milk | 19. Rice polishings |
| 5. Crabs | 12. Oatmeal | 20. Shrimp |
| 6. Cornmeal | 13. Oysters | 21. Wheat, graham or whole-wheat, flour |
| 7. Eggs | 14. Peanuts | |
| | 15. Potatoes | |

Foods Rich in Iron

- | | | |
|--------------------------------|--------------------|-------------------------|
| 1. Apricots, dried | 8. Eggs | 17. Shrimp |
| 2. Beans, common, lima, kidney | 9. Lentils, dry | 18. Raisins |
| 3. Beet greens | 10. Meat, lean | 19. Spinach |
| 4. Cabbage, green leaves | 11. Molasses | 20. Turnip greens |
| 5. Cowpeas | 12. Mustard greens | 21. Whole-wheat cereals |
| 6. Collards | 13. Oatmeal | 22. Whole-wheat flour |
| 7. Cornmeal, whole ground | 14. Oysters | |
| | 15. Dried peaches | |
| | 16. Prunes | |

Foods Rich in Vitamin A

- | | | |
|---------------------|---------------------|----------------------|
| 1. Apricots | 9. Egg yolk | 17. Okra |
| 2. Blackberries | 10. Green peas | 18. Sweet pepper |
| 3. Butter | 11. Green beans | 19. Sweet potatoes |
| 4. Beet greens | 12. Lettuce, green | 20. Squash |
| 5. Carrots | 13. Milk | 21. Turnip greens |
| 6. Cheese | 14. Mustard greens | 22. Spinach |
| 7. Collards | 15. Peaches, yellow | 23. Yellow corn-meal |
| 8. Dandelion greens | 16. Prunes | |

Foods Rich in Vitamin B

- | | | |
|----------------|-----------------|---------------------|
| 1. Apples | 8. Grapefruit | 14. Rice polishings |
| 2. Beans, navy | 9. Lettuce | 15. Rice, brown |
| 3. Beets | 10. Oranges | 16. Spinach |
| 4. Cabbage | 11. Peas, dried | 17. Tomatoes |
| 5. Collards | and cowpeas | 18. Turnip greens |
| 6. Carrots | 12. Potatoes | 19. Whole-grain |
| 7. Eggs | 13. Prunes | wheat |

Foods Rich in Vitamin C

- | | | |
|-----------------|--------------------|-------------------|
| 1. Apples | 7. Liver | 13. Rutabagas |
| 2. Beans, green | 8. Onions | 14. Spinach |
| 3. Cabbage | 9. Oranges | 15. Sweet peppers |
| 4. Collards | 10. Mustard greens | 16. Tomatoes |
| 5. Cucumbers | 11. Peaches | 17. Turnip greens |
| 6. Grapefruit | 12. Potatoes | |

Foods Rich in Vitamin G

- | | | |
|----------------|---------------------|---------------------|
| 1. Beets | 8. Liver | 15. Peas |
| 2. Beet greens | 9. Mustard greens | 16. Prunes |
| 3. Cabbage | 10. Meat, lean | 17. Rice polishings |
| 4. Carrots | 11. Milk, all forms | 18. Spinach |
| 5. Collards | 12. Pears | 19. Turnip greens |
| 6. Eggs | 13. Peaches | 20. Whole-wheat |
| 7. Lima beans | 14. Peanuts | cereal |

Good Sources of Vitamin D

- | | | |
|------------------|--------------------|---------------|
| 1. Butter | 3. Egg yolk | 5. Irradiated |
| 2. Cod-liver oil | 4. Fish-liver oils | foods |
| | | 6. Salmon |

LUNCHROOM PROBLEMS AND CLASSROOM INSTRUCTION

If the school is to have a satisfactory lunch program, the problems of the lunchroom must be correlated with instruction in various fields. An opportunity should be provided for correlating classroom teaching in home economics, homerooms, health classes, social science, art, agriculture, manual training, English, commerce, and mathematics with the practical experiences in the lunchroom. Some of the activities that may be assumed by various classes are as follows:

Home Economics Classes

1. Plan simple, nutritious, and inexpensive lunches to be served in the lunchroom. Menus can be planned as part of the regular class work in some instances as a special problem. Commodities may be used as a basis.
2. Prepare one or more dishes to be served in the lunchroom. For example, one day a main dish and bread may be prepared by the class.
3. Test and collect recipes for new dishes and pass on to manager in the lunchroom.
4. Suggest ways for preparing and serving foods in the lunchroom.
5. Encourage boys and girls to form desirable food and eating habits, and to practice good table manners and etiquette.
6. Plan and select foods needed in the lunchroom.
7. Keep records of the expenditures.
8. Help to provide for adequate storage of perishable and nonperishable foods.
9. Plan working schedules to be followed by the cooks in preparing and serving the lunches.

10. Assist in maintaining an orderly atmosphere in the lunchroom.
11. Encourage the use of more healthful foods in the lunch menus. Such foods as brown rice, yellow grits, whole-wheat flour, and other whole-grain cereals should be used frequently to provide the growth-promoting and health-giving food elements.
12. Plan the garden to supply the essential vegetables the diet needs.
13. Determine the amount of foods to supply the needs of the lunchroom.
14. Select the correct type of canning equipment.
15. Follow approved practices in conserving food materials for home use.
16. Conserve foods in a variety of ways which will aid in planning and preparing better meals.

Agriculture Classes

1. Use correct practices in cultivating a garden for the lunchroom.
2. Plan and use correct methods for disease and insect control in gardens.
3. Suggest varieties of vegetables that are suitable for certain localities, for the season, and for certain types of soil.
4. Assist in planting various vegetables.
5. Assume some responsibilities in conserving food materials for use in the lunchroom.

Manual Training Classes

1. Make cutters for cookies, etc.
2. Make flower stands.
3. Make screens, tables, seats, cabinets, etc.

Mathematics or Commerce Classes

1. Check invoices, statements, and bills.
2. Work out cost of food for lunches.
3. Keep books on incomes and expenditures.
4. Make monthly summaries and reports.
5. Work out a simplified method for keeping books.

English Classes

1. Prepare publicity for newspaper.
2. Make announcements at general assemblies about various phases of the school-lunch program.
3. Prepare compositions or themes on various foods.
4. Read stories about where different foods are found and their contribution to the body.

Health Studies

1. Study nutritional values of foods served.
2. Check the lunchroom for cleanliness, safety, sanitation, and a wholesome atmosphere.
3. Draw up a set of regulations and approved standards of health and safety for the school-lunch program.
4. Suggest a procedure for the personnel of the lunchroom to follow in getting a physical examination and health certificate.
5. Study sources of food supply for the lunchroom observing standards of sanitation and suggesting remedial measures if necessary.
6. Study the pupils' growth charts, general health, and probable relationship with lunchroom practices.
7. Devise procedures for encouraging the students to wash their hands before eating.

8. Determine healthful practices and social conduct to be followed in the lunchroom.
9. Suggest a lunch program to meet needs of good health.
10. Draw up and present plan of lunchroom operation that would discourage the sale of soft drinks, cheap candies, etc., and that would encourage the children to buy wholesome foods at all times.

Art Classes

1. Make lunchroom attractive by applying wall decorations.
2. Make posters that convey in pleasing form information about food and health.
3. Make curtains, and finish table surfaces.
4. Make flower containers and arrange flowers for the tables.
5. Finish or make trays for the lunchroom.

Science Classes

1. Arrange exhibit of fruit and vegetables in season.
2. Make charts showing what each contains and what it will do for the body.
3. Study the food value and source of foods.

EXPECTED OUTCOMES

All teachers will want to add to the preceding suggestions, make changes necessary to meet the needs of the particular group, and promote as many learning experiences as possible which will improve the nutrition and health of boys and girls. The results of such a program will pay incalculable dividends to the total educational program and to the local community. The boys and girls will

profit from such experiences and they will influence others in their homes. Some evidences of desirable outcomes of such a program are:

1. That children eat more protective foods such as milk, vegetables, fruits, eggs, and whole-grain products.
2. That children eat some of all foods served.
3. That parents request menus and recipes used at school for family use as result of the pleasing comments made by the children.
4. That more contributions of fresh and canned vegetables and fruits, dairy and poultry products are made to the lunchroom. This should result from increased production of foods at home.
5. That the boys and girls are conscious of foods which are well prepared, attractively served, and tasty.
6. That more time is spent in eating lunch and the students' enjoying a leisurely meal.
7. That good table manners are practiced by all students.
8. That the students feel at ease when eating with the group.
9. That the boys and girls are courteous and orderly.
10. That there are fewer absentees due to illness.
11. That good nutritious lunches are planned, prepared, and served each day.
12. That all students, faculty members, school officials, and parents recognize the value of the school-lunch program as an educational project in health and nutrition.
13. That all food is prepared, served, and stored under sanitary conditions.

14. That requests are made by parents for suggestions in producing and conserving foods at home.
 15. That boys and girls have improved their food and eating habits.
 16. That there are indications of improvement in health for those who showed signs of malnutrition.
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APPENDIX

DESIRABLE FOOD ALLOWANCES FOR LOUISIANA FAMILIES

Copy of leaflet distributed by Home Economics Division

A Good Daily Diet Includes for Each Person*

- 1 pint-1 quart of milk
- 1 serving of orange, grapefruit, tomato, mandarin, raw cabbage, and salad greens, or strawberries
- 1 other serving of fruit, dried or canned
- 1 serving of green, leafy, or yellow vegetables
- 1 other serving of vegetables
- 1 serving of whole-grain products as brown rice, whole-wheat cereal, oatmeal or yellow grits, other cereals and breads as desired
- 1 serving of potato, Irish or sweet
- 1 serving of meat, poultry, fish, or cheese
- 1 egg
- 3-4 tablespoons of butter
- 1 serving of simple sweets as puddings, preserves, cookies, or custard
- 6-8 glasses of water

Good Weekly Diets Include for Each Person

	Low Cost	Moderate	Expensive
Milk	4-7 qts.	7 qts.	9 qts.
Tomatoes, oranges, grapefruit, etc.	1½ #	2 #	2.3 #
Green, leafy or yellow vegetable	1½ #	2 #	2½ #
Whole-grain cereal	1½ #	1½ #	¾ #
Other cereal and bread.....	2-3 #	1½-2½ #	¾ #
Other vegetables and fruits...	2½ #	4 #	6 #
Dried fruit.....	½ #	½ #	¼ #
Potatoes	3 #	3 #	3 #
Meat, etc.	1½ #	2-3 #	3-4 #
Eggs	3-4	4-5	7
Butter	⅓ #	½ #	¾ #
Sugar	¾ #	1 #	1 #
Other fats	⅓ #	½ #	¼ #
Dried beans	½ #	½ #	¼ #

* Information adapted from "Planning for Good Nutrition," Hazel K. Steibeling, and Faith Clark, in *Food and Life*, 1939.

SUMMARY OF VALUES—ENERGY AND PROTECTIVE—OF COMMON FOODS

Food	Amount	Cal.	Minerals			Vitamins				
			Iron	Ca.	Ph.	A	B	C	E	G
Apple, fresh.....	1 small.....	63				+	+	+		+
Apple, baked.....	½ large.....	150					+	+		+
Apple, sauce.....	½ cup.....	157					+	+		+
Bacon, broiled.....	2 sm. slices.....	35			+					
Beans, baked.....	½ cup.....	129	+		+		+			+
Beans, dried.....	½ cup.....	345	+		+		+			+
Beans, Lima, dried.....	½ cup.....	263	+		+		+			+
Beans, Lima, fresh.....	½ cup.....	108	+		+	+	+			+
Beans, string.....	¾ cup.....	42	+	+		+	+			+
Beets, cooked.....	½ cup.....	40	+			+	+			+
Beet greens.....	½ cup.....	23	+	+		+	+			+
Biscuit Baking P.....	1 small.....	41								
Bread, Boston Brown.....	2 slices.....	296	+	+	+		+			
Bread, white.....	1 slice.....	50								
Bread, whole-wheat.....	1 slice.....	50	+		+		+			+
Butter.....	1 tbsp.....	90				+	+			
Buttermilk.....	1 c. scant.....	66		+	+	+	+			+
Cabbage, chopped.....	½ cup (raw).....	10						+		+
Carrots.....	½ cup.....	30		+		+	+	+		+
Cauliflower.....	½ cup.....	15					+	+		+
Cocoa, beverage.....	1 c. scant.....	184		+	+	+	+	+		+
Collards, cooked.....	½ cup.....	41		+		+	+	+		+
Corn, canned.....	½ cup.....	98				+	+	+		+
Cornmeal, cooked.....	½ cup.....	59		+	+	+	+	+		+
Cucumbers.....	10 slices.....	10								
Eggs.....	1 medium.....	74	+		+	+	+			+
Flour, wheat, white.....	¾ c. (sifted).....	353								
Flour, whole-wheat.....	¾ c. scant.....	359			+		+	+		+
Grapefruit juice.....	1 cup.....	112	+	+			+	+		+
Lentils, dried.....	½ cup.....	349	+			+	+	+		+
Lettuce.....	6 leaves.....	18		+		+		+		+

SUMMARY OF VALUES—ENERGY AND PROTECTIVE—OF COMMON FOODS—Continued

Food	Amount	Cal.	Minerals			Vitamins				
			Iron	Ca.	Ph.	A	B	C	E	G
Macaroni	½ cup.....	89				+				+
Mayonnaise	1 tbsp.....	89								
Milk, evaporated.....	½ cup.....	211			+	+	+			+
Milk, whole dried.....	2 tbsp.....	64			+	+	+			+
Milk, whole fresh.....	1 cup.....	184			+	+	+			+
Muffins, whole-wheat.....	2 av. size.....	245			+	+	+			+
Mustard gr., cooked.....	½ cup.....	22	+	+	+	+	+	+		
Oatmeal, cooked.....	½ cup.....	66	+		+		+	+		
Onions	½ c. sliced.....	48				+	+	+		
Orange juice.....	½ c. scant.....	55					+	+		
Peaches, canned.....	1 large half and 1½ tbsp. juice.....	47								
Peaches, stewed (yellow)	½ cup.....	100		+	+	+				
Peanut butter.....	6 tbsp.....	604			+	+				+
Peas, canned.....	½ cup.....	55	+		+	+	+			+
Peas, dried, cooked.....	¾ cup.....	123	+		+	+	+			+
Pepper, green.....	1	29				+				+
Potatoes.....	¾ c. rice.....	85	+		+	+	+	+		+
Prunes, dried.....	4 medium.....	100	+			+	+			+
Raisins	¼ cup.....	115	+				+			
Rice, brown, cooked.....	½ cup.....	82			+					
Rice, white, cooked.....	½ cup.....	93								
Rutabagas	¾ cup.....	41					+			
Spinach, cooked.....	½ cup.....	25		+		+	+	+		+
Strawberries	½ -¾ cup.....	41				+				
Sugar	1 tbsp.....	50								
Tangerines	2 medium.....	50				+	+	+		+
Tomato	¾ c. canned.....	23				+	+	+		+
Turnips.....	¾ cup.....	35		+		+	+	+		+
Turnip greens.....	½ cup cooked.....	37	+	+		+	+	+		+

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